In the Specification:

Please make amendments to various paragraphs as follows:

[0003] Catheters for the introduction or removal of fluids may be located in various venous locations and cavities throughout the body of a patient for the introduction of fluids to the body or removal of fluids from the body. Such catheterization may be performed by using a single catheter assembly having multiple lumens. A typical example of a multiple lumen catheter assembly is a dual lumen catheter assembly in which one lumen introduces fluids and one lumen removes fluids. Catheterization may also be performed by using separate, single lumen catheters inserted into an area to be catheterized. Examples of such multiple catheter assemblies are TESIO® catheters sold by Medical Components, Inc. of Harleysville, PA.

[0007] Typically, one catheter in the assembly, the venous catheter , is inserted farther into the patient than the other catheter in the assembly, the arterial catheter, to provide better blood circulation through the catheter assembly. Each of the catheters in the assembly is typically subcutaneously secured within the patient's body by a cuff located in a subcutaneous tunnel, or by otherwise externally affixing the catheter to the body.

[0010] Briefly, the present invention provides a clamp comprising a body having a first portion, a second portion, and a hinge connecting the first portion and the second portion, such that the first portion is disposable to face against the second portion when clamping around a side-by-side pair of catheter lumens proximate to the hinge. The first portion includes a tab extending distal from the hinge and wherein the second portion includes a locking means for

releasably locking the tab to the second portion.

[0011] Additionally, the present invention provides a method of releasably clamping a catheter assembly. The method comprises inserting a distal end of a first catheter lumen into a patient at an insertion site; inserting a distal end of a second catheter lumen into the patient proximal to the first catheter lumen; releasably clamping the first and second catheter lumens proximate to the insertion site; subcutaneously tunneling a proximal end of each of the first and second catheter lumens; installing catheter locking devices on the proximal ends of each of the first and second catheter lumens; and later releasing the catheter clamp when desired.

[0012] Further, the present invention provides a method of relocating a catheter insertion distance in a patient. The method comprises inserting a distal end of a first catheter lumen into a patient; inserting a distal end of a second catheter lumen into the patient proximal to the first catheter lumen; releasably clamping the first and second catheter lumens at a predetermined location with a catheter clamp; subcutaneously tunneling a proximal end of each of the first and second catheter lumens; determining whether the distal ends of the first and second catheter lumens have been dislodged by comparing the location of the catheter clamp to the predetermined location; moving the catheter clamp to the predetermined position; and later releasing the catheter clamp when desired

[0014.1] Fig. 1A is a perspective view of a second embodiment of a catheter clamp.

[0019] Fig. 6 is a perspective view of a catheter clamp according to a ~~second~~ third embodiment of the present invention.

[0021] Fig. 8 is a perspective view of a catheter clamp according to a ~~third~~ fourth embodiment of the present invention.

[0022] Fig. 9 is a perspective view of a catheter clamp according to a ~~fourth~~ fifth embodiment of the present invention.

[0026] The clamp 110 is preferably a generally elongated strip comprised of a first portion 112 having a free end 114 and a connected end 116. A top face 118 extends between the free end 114 and the connected end 116. Optionally, the top face 118 may include at least one longitudinal rib 119 extending outwardly therefrom , or two such ribs as shown. A bottom face 120, disposed away from the top face 118, also extends between the free end 114 and the connected end 116. The clamp 110 is further comprised of a second portion 122 having a free end 124 and a connected end 126. A top face 128 extends between the free end 124 and the connected end 126. Optionally, the top face 128 may include at least one longitudinal rib 129 extending outwardly therefrom. Preferably, the at least one longitudinal rib 129 is offset from the at least one longitudinal rib 119 on the first portion 112. A bottom face 130, disposed away from the top face 128, also extends between the free end 124 and the connected end 126. The second portion 122 also preferably includes a gripping ring 138 disposed at the free end 124. The gripping ring 138 facilitates gripping the clamp 110 by the inserting physician during catheter insertion.

[0029] The top face 128 of the second portion 122 also includes a lock 146 that secures the tab 134 when the first portion 112 is pivoted about the hinge 132 so that the top face 118 of

the first portion 112 engages the top face 128 of the second portion 122. Fig. 2 shows a sectional view of the lock 146. The lock 146 is comprised of a guide 148 that extends generally orthogonally from the top face 128 of the second portion 122 and a cantilevered portion 150 that also extends generally orthogonally from the top face 128 of the second portion 122, with a longitudinal channel 152 separating the guide 148 and the cantilevered portion 150. The cantilevered portion 150 is disposed on a ledge 139 that extends away from the second portion 122. The ledge 139 is connected to the second portion 122 by a recessed portion 140. The recessed portion 140 allows the ledge to be biased about the recessed portion 140 to ~~pivot~~ permit pivoting of the cantilevered portion 150 away from the guide 148, thus allowing the tab 134 to be disposed within the channel 152 to releasably lock the free end 114 of the first portion to the second portion 122.

[0030] The cantilevered portion 150 includes a beveled face 156 that guides the tab 134 toward the guide 148 and into the channel 152. The cantilevered portion 150 also includes a ledge 158 that extends partially over and partially into the channel 52. The ledge 158 extends into the channel 152 sufficiently so that the ~~tab 134~~ channel 152 is ~~wider~~ narrower than the ~~channel 152~~ tab 134 at the ledge 158.

[0032] An alternate ~~view~~ embodiment of a clamp 110', shown in Fig. 1A, shows a clamp similar to the clamp 110, but with a weakened portion 141' as a narrowed part of the second portion 122' to provide the desired flexibility. Other features of the clamp 110' are preferably the same or similar to corresponding features in the clamp 110.

[0033] Operation of the clamp 110 is illustrated in Figs. 3 and 4, with reference to the sectional view of Fig. 2. Operation of the clamp 110' is identical to operation of the clamp 110 and needs not be discussed. At least one, and preferably two catheters 100, 102 are disposed within the recessed portion 142. The first portion 112 is pivoted about the hinge 132 toward the second portion 122 so that the top face 118 of the first portion 112 faces the top face 128 of the second portion 122 and traversing the catheter lumens 100,102. The tab 134 engages the beveled face 156 of the cantilevered portion 150, wherein the tab 134 is guided into the channel 152. Since the channel 152 is narrower than the tab 134 at the ledge 158, the cantilevered portion 150 bends about the recessed portion 140 away from the channel 152. As the tab 134 clears the ledge 158, the cantilevered portion 150 snaps back to its original position, locking the tab 134 in the channel 152 between the ledge 158 and the top face 128 of the second portion 122.

[0034] The ribs 119, 129 engage the catheters 100, 102 to securely retain the catheters 100, 102 within the clamp 110 and secured against longitudinal movement relative to each other. Optionally, the ribs 119, 129 may compress the catheters 100, 102 sufficiently to occlude the catheters 100, 102, preventing blood loss from the patient through the catheters 100, 102, or preventing an air embolism from being aspirated into the patient through the catheter 100, 102. However, those skilled in the art will recognize that, even if the ribs 119, 129 are omitted, the clamp 110, when in the closed position, may sufficiently prevent blood loss and/or air embolism.